ABSTRACT

A method is provided for making transparent articles utilizing protective layers for optical coatings. An optical coating on a transparent substrate is provided with a temporary layer of carbon as protection during manufacturing against scratches and corrosive environments. When the optical coating and/or substrate are tempered in an atmosphere reactive to carbon, such as air, the layer of carbon is removed as a carbon-containing gas. For an optical coating with a brittle, glassy, outermost layer furthest from the substrate, additional protection is provided by a scratch propagation blocker layer between the outermost layer and the carbon protective layer.